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THE GENESEE FARMER.

SATURDAY, JUNE 30, 1838.

Comparative Agricultural Resources of the U. S.

It is believed that there is not on the earth another nation or country possessing within itself so many elements of future greatness, and such varied and inexhaustible agricultural resources, as do the United States. Russia alone has any pretensions to a comparison. Stretching east and west around half the globe, and from the polar ice to the mild and fruitful regions of the Euxine and the Caspian south-wardly, it embraces a greater extent of country than the United States; and pressing as the Scythian population of the North always has done on the warm and fertite regions of the south, Russia bids fair to yet add to its domains all the resources that climate and the sunny south can give. At the present time however the advantage is on the side of the United States; a single one of our agricultural productions furnishing more value for export, than the united productions of that vast empire.

Several years since an eminent Russian statesman published a valuable notice of Agriculture in that Empire, in which he divided the country into zones as follows:

"1st, the region of ice. 2d, the region of moss. 3d, the region of forests and pasturage. 4th, the region of barley, and the beginning of Agriculture. 5th, the region of rye and flax, or of settled Agriculture. 6th, the region of wheat and fruit. 7th, the region of maize and the vine. 8th, the region of the olive tree, the silk worm, and the sugar cane."

On the continent of America the two first divisions—the region of ice and the region of moss, fall wholly without the United States; as does also what is classed under the third, in a great degree, though the whole of the United States, with the exception of the prairies and plains of the Mississippi, may be termed forest land; and the whole northern half of this country from the Atlantic to the Pacific is excellent for pasture. The zone indicated as the region of barley and the beginning of agriculture, may be considered as passing from about the mouth of the St. Lawrence, north of the Ottawa and Superior, and by the vallies of the Red River, Saskashawin, and sources of the Columbia, to the Pacific ocean. The valley of the great lakes, Ontario, Erie, and Michigan, with the exception of the country bordering on the north of the latter, may be considered as clearly within the limits of settled Agriculture, and furnishes a greater amount of first rate wheat land than any similar country on the globe. The Canadian peninsula formed by the lakes Huron, St. Clair, Erie, and Ontario, is in character and products like the other parts of the same zone; but farther north it gradually passes into the region where barley and the hardier plants are required for cultivation.

What is denominated the region of wheat and fruit, or number 6 of the Russian division, may be considered as embracing the whole of the middle states, or a zone extending from latitude 37° to 43°. In this zone all the grains and fruits belonging to the temperate regions of the globe flourish in the greatest degree, and arrive at a perfection which evinces the suitableness of the climate and the soil. No. 7, or the 'region of the maize and the vine,' is in the United States so blended with No. 6, or the region of wheat and fruit, that an attempt to divide them would be entirely unavailing. The greatest crops of maize that have ever been raised in the United States have been grown north of 41°, and as a general rule it may be asserted that the greatest crops of any plant can be obtained towards the northern limit of its growth, or at an elevation above the sea that shall produce a corresponding effect on the temperature. Thus the table lands of Mexico and Columbia, produce large quantities of excellent wheat, while on the hot plains, it cannot be grown at all.

No. 8 of the above classification is called the region of the olive, silkworm, and sugar cane. In the United States the olive is comparatively unknown; but the silkworm, like maize, bids fair to be productive as far north as wheat and maize can be grown, and extend farther than the eastern nations have as yet deemed practicable. The region of the sugar cane in this country, like that of Russia, cannot be considered as extensive, but the plant cultivated is a variety superior to the eastern one, and yielding a much larger quantity of sugar. The olive, the silkworm, and the sugar cane, are however completely eclipsed in importance in this country by another plant which forms one of the most important staples of this or any other country—the cotton plant. We believe the culture of cotton has never been attempted in any country of Europe or Asia, in a higher latitude than Egypt, though its cultivation would seem practicable wherever the cane can be grown.

It appears then, that in addition to the articles enumerated in this *expose* of Russian Agriculture, we can add one more of more consequence than any of those named, with the exception of the cereal plants. We can cultivate the barley, rye, wheat, fruit, vine, silkworm, olive, and sugar cane, and to these add cotton to the amount of one hundred millions a year. The United States reach to the northern verge of agriculture, but its limits they do not transcend. To the south they reach the climate of the tropics, and the experiments of Dr. Perrine prove that in Florida we have a region adapted to the production of those numerous and valuable plants that flourish on the low lands of Columbia and Guatamala.

One of the most curious results of this comparison of the resources of the two countries, is the difference of temperature shown between the two continents in places of the same latitude. Thus in the article to which we have alluded, the southern region of the region of barley, and the beginning of Agriculture, is fixed at 63° north latitude; corresponding on this continent with the latitude of Hudson's strait, the Slave lake, and Omalaska, a zone in which the cultivation of grain has never been attempted, and in which the hardy wild oat *Zizania aquatica* rarely takes root or ripens its seed.

The region of 'rye and flax' is marked as extending from the 63° to the 51st degree, a zone which a glance at the map of this continent will show is justly considered beyond the limits of Agriculture, though at some of the British trading posts, or fur company settlements, a little barley or oats may have been sometimes with difficulty grown. No part of this zone falls within the limits of the United States.

The region of 'wheat and fruit' extends on the eastern continent from latitude 51° to 48° and is so called, "not because these productions of the soil do not thrive in the last mentioned region, but merely that they are more abundant here, and the climate perfectly genial to their growth." On the American continent this zone would embrace the mouth of the St. Lawrence, its southern limit would approach the north of lake Superior, the source of the Mississippi, and the north-western boundary line of the United States. Eleven degrees farther south we find the wheat and the fruit country of United States, east of the Rocky Mountains; west of this range different causes are in operation, and a very different temperature is the result. At the mouth of the Columbia, the vine, olive, mulberry, sugar cane, and the tropical productions of Louisiana and Florida are found in perfection in the garden of the agent of the fur Company; evincing the influence of the winds from the Pacific in a striking degree.

The region of 'corn and the vine,' extends from the above zone to latitude 43, embracing the Crimea, New Russia, and Bessarabia, and corresponding in latitude to the region embraced by the Canadas and the extreme north of the United States. The temperature is that of the Carolinas, Alabama, and Mississippi.

The zone of the 'olive, silkworm, and sugar cane,' extends from 43° to 38°, or the Caucasian range, with newly acquired territories south of this range. On the American continent, this zone would embrace the middle states, or what may *here* be emphatically pronounced the region of wheat and fruit. The part of the United States whose productions are similar to the above, lies south of latitude 32°, with the exception as before remarked of the territory of the Columbia river where the isothermal line that in the United States touches 31°, ranges to 46° or the latitude of lake Superior.

In the closing paragraphs of the Russian state paper to which we have alluded, is the following remark,—"the growth of cotton would also be of great importance to the southern provinces of the empire, if it could be carried on to any extent. The same may be observed of rice, but they are both, when extensively cultivated injurious to the climate." That the drowned lands necessary for rice may have a prejudicial influence may be admitted at once; but it is not so clear that the cultivation of cotton should have such an effect. Has there been any appearance of such a result in the south? We think not.

In estimating the comparative situation and resources of the United States, we cannot but be struck with the extent and variety of our territory as well as its capacity for all the forms of Agriculture. The Mississippi river rising, in what on this continent may be considered the extreme northern limit of agriculture, on the borders as it were of regions of snow and ice, passes in succession all the zones we have named, and finds an exit in a tropical sea, with banks crowned with the orange and the sugar cane, its whole course embraced in a single government, one people, one language, and one law.

Italian Spring Wheat.

"As some in this vicinity, who have sown this article have been disappointed in its growth, we have been requested to publish the following extract from a letter of Mr. Hathaway, which will probably satisfy them as to its cause.

'Rome, May 14, 1838.—I took a few days since as ample of wheat from the mill, (it was Italian) and divided it into three parcels, one I sowed without preparation—one I soaked twelve hours in brine and sowed it—the other I soaked twenty-four hours in brine and sowed. All of them in a warm place, summer heat; the first was found in five days fully sprouted and rooted, not a grain in fifty but was alive and grown; of the other two parcels, not a single grain has or will grow. I intend to make further trials, and shall soak other parcels from one to ten hours, and endeavor to ascertain for a certainty how long it will bear the brine, and still vegetate. The Italian wheat has very thin skin, and perhaps the brine will sooner destroy its vitality than other wheat.'"

We copy the above from the Philadelphia Gazette, and presume it relates to the partial failure of the wheat sown in that vicinity. This failure in many parts of the country is not confined to the Italian wheat, or to that which has been brined. We are inclined to attribute it to the low temperature and extraordinary wetness of the month of April, which causes combined would effectually prevent in many cases, the germination of seeds in the earth, and cause them to rot. That this was the case in some instances we know from examination, the seed having been found entirely rotten, without exhibiting any symptoms of germination. Some of our spring wheat this year was allowed to lie in the brine from fourteen to sixteen hours, and as the weather was unfavorable for putting the seed into the ground it was taken out, drained and then piled on a floor where it remained for a week,

being occasionally shovelled over to prevent its heating. The brine was so strong that each kernel when dry was glossy and shining from a thin coating of salt, yet when when put into the earth no failure in sprouting has occurred. A friend of ours brined his spring wheat and it then lay for a fortnight drying gradually, and yet when sown grew well, and without failure. We do not imagine that soaking in strong brine for 24 hours would destroy the vitality of wheat unless accompanied with an increased temperature as it appears was the case in Mr. Hathaway's experiments. Our wheat was of both kinds the Italian and the common; and the wheat of our friend alluded to, was also Italian. We would not advise, however, a longer soaking of wheat in any case than from four to six hours, as that will be sufficient to soften the envelope and hasten germination, and the action of salt too long applied *may* be fatal to germination, as the application of too large quantities is certainly so to vegetation.

Ed. Gen. Far.

THE BEE MOTH.

Of all the enemies of that industrious little creature, the bee, there is no one so formidably destructive, as the larvæ of the *Phalena mollona* of Wilson, the miller of the bee hive. The appearance of this insect is well known to every keeper of bees, both in the state of larvæ and in that of the perfect insect; and the serious ravages they make in the apiary, and the loss they occasion the farmer, have caused them to receive a proportionate degree of attention, both from the naturalist and the owner of bees. It is probable there are more than one variety of Phalena or miller that injure bees: and the *Spinx atropos*, a larger kind than the one above mentioned, has been accused by Reaumer of feeding on the honey, while the other deposited its eggs in the hive, and thus gave birth to multitudes of the destructive larvæ or grub.

To discover some method of preventing their attacks on the hive, has been an object of much solicitude, and many expedients have been adapted, all of which have been more or less successful; and as several of our correspondents have submitted queries relating to this insect, we have embodied below from various sources, a number of the methods that seem to have been the most approved, or the most likely to answer the desired purpose. It may be remarked that the egg is usually deposited by the miller near or under the bottom of the hive, or in some convenient crevice within the hive, and where the moth enters the hive it always seeks a refuge from the bees in some such retreat. It would appear therefore that any method that should have few such places of deposit or retreat about a hive, could not fail to operate favorably; or if convenient places of retreat, or for the deposit of the eggs, were provided for the miller near the bottom of the hive, and these frequently examined and the millers and eggs destroyed, there would be much less danger of their ascending in the hive.

A writer in the National Intelligencer recommends boards with a number of holes bored in them to be placed on the bottom of the hive; the result will be, "the miller or bee worm, when he enters the hive, or is interrupted by the bees seeks a place to deposit its eggs; the holes formed, offer a convenient place for eggs or for retreat. The boards are to be removed two or three times a week, and the eggs brushed from the holes. This course will prevent the ravages of the bee worm, as the insect is produced from these eggs."

Mr. Chandler of South Hadley, gives the following directions for the preventing the attacks of the miller; but we must say that unless compelled by necessity, we should not adopt the plan, since such a low location must be unfavorable to the health of the bees, and the purity of the honey. "Take the hive from the bee-house about the first of May, set it on some place on the ground prepared by scraping it smooth so that the spot may be level and hard where the hive is to be placed. Place a board over to keep off the rain, and secure it against being blown over. The hive thus situated, bugs, ants, millers, &c., will not disturb, and the bees will increase, multiply and swarm as often as those kept in the bee-house. Since I adopted this mode of placing my hives I have not had a miller or a grub in my hives."

Mr. Stone of Mass., says—"I think I have found a remedy for the bee moth, viz—early in the spring raise the hive on proper supports, so that the bees can pass out all round the hive, and they will soon start all the worms out. I have formerly lost bees by the worms, and when I began to raise the hives, I could see the bees pull them out at a great rate. If the worms are not too numerous, raising the hives at this time (June) will answer a good purpose."

The Rev. W. W. B. of Hammond's Port, a most accurate observer, to prevent the depredations of the moth recommends a hive "that has no notches or holes in the edge at the bottom. This hive is placed on a bottom board which projects on the front side about eight inches. In this part that projects, there is cut a groove two inches wide and one third of an inch deep, running under the hive. The hive is set on fitting as tight as possible to the board; then a thin strip of board is put on, covering the groove, one end fitting snug against the hive, and the other extending to the edge of the board, thus placing the entrance eight inches from the hive." Mr. B. gives several instances of individuals who have adopted this method of placing their hives, and found it to exclude the moth.—We believe, however, that some others have not been in all cases so fortunate.

At the 102d page of the Genesee Farmer for 1836, is a good article on the management of bees, and the best methods of keeping away the moth or grub. The writer, 'J. H.' recommends to turn up the hives frequently and brush them out with a wing or broom brush;—to place sweetened water and vinegar, in saucers, about and on the hives as soon as the bees have done work at evening, and removing them before they commence work in the morning, in which most of the millers will be found drowned;—to place the hives on blocks an inch square, and half an inch thick, that no eggs may be laid under the edge of the hive; and if any grubs are found to exist in the hive, to take pieces of white elder as large as a man's finger, split them and scrape out the pith, cut notches in the sides, and place them, the hollow side down, on the floor of the hive. The worm, driven down by the bees, or the miller that enters the hive, will take refuge in these hollows, and may be thus secured and destroyed by proper attention.

Judge Buel, in the Cultivator, remarks—"It has been said that where there are a number of hives, the bee moth concentrate in one hive, and leave the rest undisturbed. This has been in a manner verified by our observation during the last two years; for we have in both years found one almost literally filled with the worm, butterfly and grub, which we immediately consigned, hive, honey and all to the flames; but have not found a moth, or the signs of one, in other hives from which we have taken honey."

"Ulmus" has proposed, in order to prevent the possibility of the worms effecting a lodgment under the edge of the hive, to place a margin of tin around the inside of the hive, of such a width as to reach below the hive an inch; the thin edge of the tin resting on the boards would afford no place of retreat for miller or worm; and the tin plate would form no obstacle to the ascent of the bee. It is evident the less the opportunity of retreat for the worm or miller, the better the chance for the bees, and if tin was not used, champering or paring the bottom of the hives to a thin edge might be very useful. It was at one time hoped that by placing the hives in an elevated position, as in the garret of a high building for example, they would escape the persecutions of the miller, but the result, we believe, has proved the supposition fallacious.

Various substances have been proposed and tried to prevent the attacks of the miller, and hinder his making a lodgment of the grub within the hive. But it was found in most instances that any thing of a nature sufficiently strong or repulsive to drive off the miller, was disagreeable and annoying, if not fatal, to the bee. Spirits of turpentine applied frequently around the bottom of the hive, appeared as effectual as any thing, the smell of the turpentine being repulsive to the miller, and the application fatal to the egg or the young larvæ. A gentleman of our acquaintance, who has long kept bees, and who has been remarkably successful in their management, informed us that his method of keeping away the moth, was, in the spring, and on the earliest appearance of the miller, to prepare a mixture of turpentine, oil of spike, and a little camphor, which he put in a tea saucer, and placed on the board immediately under the bees within the hive. To prevent their falling into the mixture, a covering of muslin was well secured over the vessel, and this was allowed to stand, being replenished occasionally, if necessary, until the danger from the bee worm or moth was past. The presence of such a foreign mass, at first, gave the industrious inmates some uneasiness, but they soon became accustomed to it, and rested on it or crawled over it without difficulty. We should, however, be more inclined to rely on frequent examination, and thorough cleaning of the bottom of the hive; or placing a thin board that should not lie perfectly close on the bottom board within the hive, so that a miller on entering might find a convenient place or retreat and deposit for its eggs without ascending to the comb, and from which board they could be dislodged and destroyed with more certainty than any other process we have yet seen noticed, though, owing to circumstances, all methods may at times fail.

We have been sorry to learn, that in consequence of the unusual warmth of March, and perhaps January, the bees in many places became active, or revived from their dormant state to the use of food, too early; and as the flowering of plants has been unusually retarded, the stock of honey became exhausted before supplies could be obtained from abroad; and many hives that stood the winter well, but were not looked to during April and the first part of May, have perished of starvation. The spring of the year is the most critical period with the bee, and particular attention should be paid that he does not want; a small supply of proper food then will be repaid with ample interest in autumn. An English publication recommends as food for bees in the spring, where honey cannot be had, one pint of ale, one pound of clean brown sugar, and a spoonful of salt, to be boiled together, skimmed, and then fed to them in shallow vessels. This preparation nearly resembles honey, and the bees are fond of it. Few things on a farm afford better profits than bees, and none better repay any attention paid to their comfort and health.

Agricultural Charlatanism.

We perceive in our agricultural papers notices of the method of making manure discovered by M. Jauffret, and some of our contemporaries seem to consider it as almost miraculous. We may as well say here, as we think we have not noticed the matter before, that M. Jauffret professed to be able to change by means of a lye, used by sprinkling straw, leaves, plants, even woody stalks of a finger's thickness into first rate manure in an incredibly short space of time. The preparation was kept a secret, and the announcement caused a great sensation in France and England. A committee of the French Academy of Agriculture gave their testimony in its favor, and demands for the right of using, or the sale of the liquid, flowed in upon M. Jauffret from all quarters, while the cash that accompanied the orders, rapidly accumulated in his pockets. A proposition last year to invite M. Jauffret to England, from some circumstance failed; but some English gentlemen visited Paris at the expense, we believe, of the London Farmer's Magazine, for the purpose of determining the value of the invention. Their report was decidedly adverse to the process, and the examination showed that the greatest frauds had been practiced on the community. M. Jauffret is dead, and a chemical examination proved it to be only an alkaline solution, good in its effects on the soil, of course, but utterly incapable of performing the effects claimed by the inventor. There is no magic, we had almost said no mystery, in the preparation of manure. It is the result of animal or vegetable decomposision; and what has once been the constituent part of plants, is more readily adapted to their use, than matter which was never under the process of vgetable or animal organization. In the application of science to agriculture we are entitled to expect great improvements, but not

miracles, and any process that claims a result approaching to this may well be looked upon with suspicion.

Since writing the foregoing, the last number of the London Magazine has reached us, and from it we make the following extract.

"*The New Manure of Jauffret.*—A friend of ours has obligingly written to a large landed proprietor in France, who is a member of the chamber of Deputies, making enquiries respecting this man, and his *invaluable* manure, when it turns out that he is one of that class of charlatans, of which there are so many at this time practising deception on the Agricultural community. It appears that the old peasant has lived in clover these last two years, and duped dozens of Mayors, Prefects, and other functionaries, and taken the cash of hundreds of subscribers. 'Our friend's informant, who was himself one of the dupes, states that the new manure costs double the price of ordinary manure. The author of this *valuable* discovery it seems is dead. Had there been a National Agricultural Institution in existence in this country, having individuals connected with it ready and competent to examine into such pretended discoveries, this *swindler's* tricks, as well as those of many others, would long since have been exposed."

QUERY, No. 5.---Manure.

"Farmers are not agreed as to what depth beneath the surface dung should be placed, in order to be rendered the most availing. Do not farmers frequently bury their manure so deep as to impair its good effect? I believe that dung exerts its powers to the greatest advantage when placed pretty near the surface, but more light on this subject is needed. Although when placed near the surface, it may do the most good to the next crop, yet is this the position which should be given it when the greatest ultimate profit is the object aimed at?" A Farmer.

A proper answer to this query would fill a volume, as it would embrace an account of the different soils, the action of manure upon each, the kind of manure most proper for each variety, since all these things have a direct bearing on the subject. We however can only say that all vegetable and animal substances which undergo decomposition, contain more or less of the elements necessary to the growth of plants; and the great object of applying manures is to make them afford as much soluble matter as possible to the roots of the plant, and that in a gradual manner. Mineral manures, however, it is supposed do not act on the principle of nutrition, but of excitability.

If then, in the use of putrescent manures, or dung, the great object is to present it so that the roots of the plant will most readily be benefitted by the soluble matter afforded to them, it appears to us that covering to a great depth would be entirely subversive of that end. Were we to give a definite opinion on the subject it would be to plough deep—to render the earth mellow and friable to as great a depth as possible, so that the roots could easily penetrate,—but to bury the manure lightly. It should all be buried however, as that is we think indispensable to the greatest benefit from its application. We would plough deep that the surface water of rains, &c. could easily sink and not drown the young plants, and that the roots by penetrating to some depth, should not be liable to leave the plant to suffer from drouth; and we would cover the manure not too deep, because a slight covering of earth is sufficient to absorb the gases that escape from manures during their decomposition and afford most valuable nutriment to plants, and because seeds or plants throw out the most abundant roots near the surface, and of course it is there they will soonest find the nourishment they require.

We may on this point have the misfortune to differ from some of our agricultural friends, but we think our position most consonant with correct reasoning and experiment; and besides, we find ourselves supported by high names in the annals of farming.

Sinclair in his Code of Agriculture, and Brown, in his work on Agriculture, make in substance the following remarks.

"Notwithstanding what has been already said respecting the practice of those farmers who allow manure to lie for a long time upon the surface of the earth, we however agree with the opposite opinion—that it should be spread as taken from the cart, and completely incorporated with the soil; for by tillage it becomes amalgamated with the inert particles of the earth through which means both that and the dung form one substance in the fittest state to promote the growth of vegetation. It should not however be buried too deep at first; for though it is the prevailing opinion of many persons, that, by deep covering, the dung is defended from the injurious effects of exhalations—that the roots of plants soon find their way to it—and that it will be raised higher by after ploughings—yet, there are men of accurate observation, who, from long experience, have found, that if dung be only just covered, the nearer it is to the surface the greater are its effects in promoting fertility, for then it lies near the roots of young plants, at the time they need the most cherishing aliment. They also declare, that dung never rises to the surface, after it has lain mixed for a season in the soil; but that on the contrary, as it dissolves in the earth, the solution descends as low as the soil has been stirred by the plough."

Judge Powell, in some of his valuable agricultural papers, remarks that by ploughing deep and high manuring, he had converted the most of his lands into the richest soils as deep as the plough could reach, say 12 or 14 inches. This would not have been the case, had there not been a continual tendency in the manure applied to sink as low as the plough had lossened the earth, and nothing is wanting to constitute soil, where vegetable or animal matter or mould can be sufficiently mixed or incorporated with the native earths. This tendency to sink, is perhaps more strongly shown in the mineral manures, such as lime or marl, than in putrescent ones; and Malcolm in his Agricultural Survey says that where lime has been used in large quantities on lands containing considerable sand, but with an impervious or hand-pan subsoil, the effect of the sinking of the lime has been to produce a compact and lime mortar bottom, of course destructive to vegetation, until thoroughly broken up with the plough.

The true course would seem to be, to stir the earth as deep as possible, to make the surface intended for the seeds and the roots of the young plants perfectly fine and friable, to incorporate with this surface earth the manure, covered so that nothing of its powers should escape during fermentation, but not so deep as not to be readily accessible to the roots of the plants. Experience shows that light dressings placed where required by the plants, and repeated as often as is necessary, are more profitable to the farmer; and by the repeated tillings being allowed to mix more completely and deeply in the soil, more beneficial to the soil, than heavy dressings placed so deep as to be a longer time in decomposition or incorporation with the earth.

Horticultural Hints.

Drill Culture.—Sowing in drills is well adapted to all garden crops which are not to be subsequently transplanted, as radishes, turneps, carrots, lettuce, onions, &c. The advantages this mode possesses over broadcast sowing, are these:—The plants, after thinning are more evenly distributed; and, as a consequence, a greater number of fully grown plants are obtained from an equal space of ground; instead of requiring weeding chiefly by hand, the work may be done more expeditiously by a narrow hoe; and very great benefit to the plants is derived from stirring the soil between them. Even in crops of turneps which are to stand a foot asunder, the loosening of the earth between them can be but very imperfectly accomplished; but where they are in straight drills, the workman may cut closely to them without injury, and to almost any required depth.

To cause flower seeds to vegetate.—Where flower seeds have not been sown early, they may be made to vegetate rapidly, by covering them after sowing with an inverted pot. This keeps the soil moist, and their growth is accelerated by the sun's rays heating the confined air. They should be completely covered until they have thrown out their first roots, when the pot should be raised a little; and after a few days may be entirely removed.

Filberts, barren.—It is a common complaint that the filbert produces but little fruit in this country, and is not unfrequently wholly barren. This has been ascribed to the cultivation of bad varieties, and it may be in some degree owing to this cause. But the chief reason is improper culture. They are allowed to throw up a multitude of suckers, each bush thus forming a thick mass. No variety will bear in any quantity in this condition. Each plant should be trained with a single clean stem at bottom, to the desired height, say of two or three feet.

The Curculio.—It is now time to turn hogs into orchards, or those portions of orchards, which bear smooth stone-fruit and are consequently liable to the attacks of this insect, as plums, nectarines and apricots. The hogs eat the fallen fruit, and thus destroy the young insect and prevent its depredations another year. The present year's crop may be *effectually saved*, by spreading broad white sheets under the tree, jarring off the insects, which are depositing their eggs, by striking the tree, and killing them immediately. In color and size, they appear like the withered blossoms of the plum or nectarine, and are distinguished by the resemblance their elongated head and thorax has to a beak. The operation must be thoroughly repeated two or three times a day until they are all destroyed, and it must not be left so late in the season that the fruit has all been previously stung and impregnated with the eggs. It should be done immediately. J. J. T.

Hoven in a Cow, caused by Swallowing a Snake.

In the last volume of the Farmer, a correspondent requested some information as to the method *said* to be practiced by the Germans, and by some in this country, of curing this disease, as well as its cause;—the latter of which is said to be the turning of the point of the long tongue of the animal downs its throat, and the continued effort to swallow the obstruction bloats up the animal, and the cure consists in nothing more than in removing the tongue by the hand to its natural position.

That the swallowing of the end of the tongue would produce a similar effect to hoven, so far as *bloating* is concerned, admitting the occurrence of such an event, seems very probable; as calves not unfrequently blow themselves up by sucking the ears or other parts of their companion's bodies; but that an ox should swallow his own tongue seems very improbable, and the compression of air in the stomach by swallowing, would hardly produce the acid fermentation and rapid formation of gas that always accompanies hoven.

Not the least hint of this origin of hoven, has been given in any work on the diseases of animals with which we are acquainted; a fact which would appear nearly conclusive against its possible occurrence; still as the age of discovery and improvement is not past, it is to be hoped that the subject will be investigated with particular reference to this matter, and that those who have cattle attacked with this serious complaint, will ascertain at once the position of the tongue, and whether its situation is natural or otherwise.

The only thing we have met with which would even indicate the occurrence of bloating from swallowing air, is the following curious history copied from a French Veterinary Journal, into that great work on cattle and their diseases, published in England by the Society for the diffusion of Useful Knowledge.

"A cow that had been turned into the pasture in perfect health, was found in the course of the morning, laboring under great excitation, making frequent and violent efforts to vomit, and then galloping over the field with her mouth half open and the saliva running from it, as if she were mad. The eyes were haggard and fixed, and starting from their orbits, and the nostrils were unusally dilated. When she stood her back was bowed, but presently she would stretch herself out, and bound away over the field. Her paunch began speedily to swell; she moaned dreadfully, and could not be still for a moment.

"The practitioner sent for, not having a trocar, punctured the rumen (or stomach) with a bistonry. A vast quantity of gas rushed violently out; the enlargement of the abdomen subsided, and she appeared to be perfectly at ease; but presently the efforts to vomit recommenced, and the aperture into the paunch made by the knife being accidentally closed, she began to swell again. The practitioner now suspected that the cause of all this mischief was concealed somewhere in the gullet, or the entrance into the first stomach. He carefully examined along the whole extent of gullet in the neck, but could not detect any obstruction. He then opened the mouth, and raised her head, in order to introduce a flexible osier rod into the stomach or gullet, when the animal making a violent effort to vomit, he saw the tail of a snake in the posterior part of the mouth. He seized it immediately with his right hand, and, steadying himself by laying firm hold of the horn with the other, he drew the snake out: it was dead, and measured three feet eleven inches in length. There was no appearance of bite or wound upon it, but it was covered with a greenish spume. The efforts to

vomit immediately ceased, the hoove or bloat disappeared, the cow began to ruminate, and steadily regained her appetite and spirits."

In this singular case it would seem the continued efforts to swallow the obstruction in the throat, caused hoven or bloat, and if the ox *can* partially swallow his own tongue, the same fruitless efforts to remove the difficulty might end in the same result. As the subject of hoven is one of great importance to cattle growers, we may return to the subject again, and give the views of the best foreign veterinarians on the nature of the complaint and the best methods of cure, hitherto employed.

Planting Trees.

We are most happy to perceive that this long neglected duty of the inhabitants of both town and country is beginning to receive the attention it deserves. The inhabitants of Bangor, in Maine, having determined to plant the streets of their city, addressed to Gen. H. A. S. Dearborn, of Boston, a letter requesting his advice as to the best trees to be planted, and the method of planting. His reply is given in the New England Farmer, and may be read with profit by every one interested in the improvement of his grounds, or the ornamenting of his city or village. Gen. D. says:

"For your streets, I recommend the alternate planting out of Rock Maples, Elms, White Ash, White Maple, Basswood, Beach, and Red, White and other oaks. The Rock Maple is certainly one of our most superb trees, and in my own estimation superior to the Elm. Its form and foliage, with the splendid changes of its autumnal aspect, are of surpassing beauty."

In directions for planting, he says:

"As to selecting trees from the forest, by all means do not commit the too common error, and seek to gain time, by obtaining those of a large size. They should not be over *two inches* in diameter, and taken up so carefully as to retain *all the roots*, and especially avoid another custom of ignorance, by not mutilating the tops. You might as well set out one of the cedar logs rafted down your river, and expect it to grow, as imitate the general practice of chopping up a tree from the roots with an axe, and then cutting off its head and ramming this stump into hard gravel or clay. These two conditions are indispensable for a successful result; *retain all the roots*, and *do not cut off a single twig*, save such as may be within four or five feet of the ground."

We have often borne testimony to the beauty of our Rock or Sugar Maple as an ornamental tree, and are gratified to find Gen. Dearborn placing it at the head of his catalogue. Its fine rounded top, its dense and deep green foliage, its cleanliness and freedom from insects, and its value when grown, fully entitle it to the distinction here given. Our experience in planting this tree, would, however, be somewhat at variance with the directions given by Gen. Dearborn. We would follow his directions fully in every respect, except that relating to the top; this we should cut off. We find that when taken from the grove or forest, the young maple has generally a head spreading horizontally rather than otherwise, and if left on at planting, it will frequently be several years before a leading shoot will be formed, without which a fine rounded top cannot be expected. In taking up the young maple, we leave as much of the root and the earth upon it undisturbed as was possible, the branches we should carefully trim off the bole till we had reached a proper height, say ten or twelve feet, and at this point we should lop off the entire top; though, if convenient, a few twigs may be left at this point to assist in the circulation of the sap, but not with the expectation that they will materially aid the formation of a head. We have the present year transplanted a few in this way, and they are now, the first of June, throwing out fine vigorous shoots immediately below where the top was lopped, and but a short time will elapse before a fine head will be formed.

We are firm believers in the doctrine, that any city or village could not expend money more profitably, than in planting the streets with suitable trees. In the operation, beauty and health would be alike consulted, and we hope that in all the villages of Western New-York, some public spirited individuals will be found to see that such improvements shall be effected. Let our farmers once awake to the subject of planting trees, and feel as much anxiety to restore as they once did to destroy, and the face of our country might be changed and beautified at once. If each one would plant the border of the highways passing through his farm with ornamental or fruit trees, our dreary looking roads would be changed to delightful avenues, and furnish the most conclusive proof of public spirit and cultivated taste.

YEAST.

The following receipt for making yeast, was furnished by a person, well experienced in such matters, as a means of obtaining a most excellent kind, which is easily made, easily kept and does not soon become sour. It is considered as far preferable to any other, and has been thoroughly proved.

Boil twelve clean-washed, middle sized potatoes; and at the same time, boil, in another vessel, a handful of hops in a quart of water; peel and mash the potatoes fine, pour part of the hop-water, while hot, upon the potatoes, and mix them well; then add the remainder of the hop-water, a spoonful of sugar: beat all well, add a small portion of leaven to bring on the fermentation, and set it in a cool place. All the utensils must be scalded every time they are used, and washed perfectly clean. One tea-cupful of the above potato yeast, will answer for two quarts of flour.

—

From the same source, we have been furnished with the following *Observations and Directions, necessary to be observed by all makers of good puddings.*

The outside of a boiled pudding ofter tastes disagreeable; which arises from the cloth not being nicely washed and kept in a dry place. It should be dipped in boiling water, squeezed dry, and floured when to be used.

If bread, it should be tied loose; if batter, tight over.

The water should boil quick when the pudding is put in; and it should be moved about for a minute, lest the ingredients should not mix.

Batter pudding should be strained through a course sieve, when all is mixed. In others, the eggs separately.

The pans and basins must be always buttered.

A pan of cold water should be ready, and the pudding dipped in as soon as it comes out of the pot, and then it will not adhere to the cloth.

—

Bread and Butter Pudding.

The following, an excellent and not expensive pudding, was obtained from the same hand.

Slice bread spread with butter, and lay it in a dish with currants or chopped rasins between each layer; pour over an unboiled custard, and spice it to suit the taste, at least two hours before it is to be baked. J. J. T.

Great Crop of Oats.

Mr. Jonah A. Hulbert, of Great Barrington, raised last year eight acres of oats that gave the extraordinary average of 91 bushels to the acre, weighing 35¾ lbs. to the bushel. Mr. Hulbert's oats were sowed after corn, and at the rate of 2½ bushels of seed to the acre. One and a half bushels of plaster were sown per acre, immediately after the oats were up. There are few crops of oats on record equal to this, and the farmers of old Berkshire may well take courage, when they look at the extraordinary crops grown in many instances by them the past year.

Mexican Piggery.

We find in 'Bullock's Mexico' the following account of the principal piggery in that city, the sales from which amount to several thousand dollars a week, and which we notice to show the opinions entertained there of the benefit of keeping swine clean while fattening, a practice derived from the most ample experience. After describing the building, yards, &c. the writer says:—

"There is an open space the whole length of the yard, in the centre of which is a kind of acqueduct built of stone and filled with clean water supplied from a well. The hogs can only put their noses into this water through holes in the wall, which prevents their dirtying it. This is the only liquid given them; and their food is Indian corn or maize, slightly moistened and scattered at certain hours upon the ground, which in the yard, as well as the place where they sleep, is perfectly dry and clean. They are attended by several Indians with every possible care, and have a cold bath on the premises which they are frequently obliged to use, as cleanliness is considered essential to their acquiring that enormous load of fat from which the prineipal profit is derived. Their ease and comfort are studiously attended to in every respect; and two Indian boys are employed from morning till night in settling any little bickerings that may arise in this swinish community, and in singing them to sleep. These boys succeed each other in chaunting, during the whole day to the great delight and edification of the audience, who seem fully to appreciate the merits of the performers."

"The American Silk-Grower"

Is the title of a handsomely printed sheet, the first No. of which we have just received from Burlington, N. J. It is to be published monthly, by Ward Cheeney & Brothers, gentlemen who have been extensively engaged in the manufacture of Silk for some years past, both in Connecticut and New Jersey, at 50 cents a year. From their practical knowledge of the subject to which the Silk-Grower is devoted, we cannot doubt but it will be a valuable accession to this class of periodicals, and every person engaged in the silk business should supply himself with a copy. The reader will find an article of much interest from its pages, in another part of this paper.

From the Franklin (Ky.) Farmer.

CLOVER SEED.

Mr. Editor—I was in your city a few days ago and saw considerable quantities of clover seed for sale at eight dollars a bushel. When we consider the high price at which it sells, and the quantity used in Kentucky, it is astonishing that so few save it themselves, and that we bring most of what we use from other states. A man can, with a common scythe, in a day, in a very indifferent clover field, cut enough clover to make twenty bushels in the chaff, and this quantity will sow twenty acres. It can be beat out by children with small sticks.

My first experiment in this way was a very successful one. After I took my hogs off my clover field to turn upon my rye, the clover was allowed to go to seed, and when fully ripe two men were sent with scythes to cut it, and some children to put it in sheafs, and the next day an old man with some children, took a sheet and would put a part or one of the heaps upon a sheet, and the children would beat it with small sticks until the heads were separated from the stalks, when he would throw the hay off and put the seed in a bag. One (pressed) bushel of this seed is enough to put upon an acre of ground, provided the heads are well filled with seed. There is a difference in the quantity of seed in the heads at different times of year. The second growth contains much more seed than the first. In this experiment I saved twenty bushels of seed, and sowed a twenty acre field, and have never seen a better field of clover. The seed was ripe and dry and was threshed without getting wet. The two men were about half a day cutting it.

The next experiment was not quite as favorable in getting the seed, but was successful in the result. After mowing a crop of clover hay (which was done when the bloom turned brown on the upper stems,) the clover of the second growth was permitted to seed and cut as before; but before it was threshed there came on it a heavy rain, in consequence of which, I had the clover carted on the field and spread upon it. It took finely, and was a good field of clover, but not so good as the first—not being as evenly scattered—but was better than most fields, for it had on it plenty of seed.

In the second vol. of the American Farmer, Mr. Minor recommends a machine for gathering clover seed, with which he says a man may gather 100 bushels a day. The machine will costs less than a dollar to make it, and a man may save with it in one day seed enough to sow as much ground as $50 worth of cleaned seed would. Another great advantage would result from persons saving their own seed—they would put more seed on the ground.

I may, at some future time, give you a description of the above machine. SAM'L. D. MARTIN.

"Summary of the Principal Chinese Treatises upon the Culture of the Mulberry and the Rearing of Silk Worms. *Translated from the Chinese.*"

This interesting and valuable work, published by Peter Force, at Washington, should form part of the library of every silk grower. It contains many important points that tend to facilitate the business and ensure success. The translator particularly calls the attention of the reader to those parts of the work that treat "upon the manner of making the butterflies lay their eggs; also of the means employed to make them hatch at the same time." He also states as a fact, that the Chinese method is vastly superior to the European, for "*they hardly loose one silk worm out of a hundred* while the Europeans *lose fifty out of a hundred.*"—*American Silk-Grower.*

COMMUNICATIONS.

Protection of Sheep.---No. 4.

Mr. Editor—Not having exhausted the above subject, I shall offer a few more remarks upon it, which I promise you shall be the last.

Doubtless many think—who are mere skimmers on the surface—that I have chosen an unfavorable time to advocate the cause of protection, for the reason that the great interest of sheep husbandry is in a depressed state, and is not likely, at least very soon, to resume a profitable stand. Those who have arrived at this conclusion, in my opinion, are palpably wrong. Such I would ask, peradventure wheat was worth no more than five or six shillings per bushel, would you sow only half that you could?—and would you merely scratch over the surface of your ground preparatory to sowing it, and thereby produce not one-third, if well put in, of which the soil was capable, because the article was depressed?—If so, methinks, you would, indeed, be verifying the old saying—"biting off your own noses." No, on the contrary, clearly the better way would be, under such a state of things, if we would put money in our pockets, to redouble our efforts to do all that we can, and do that better, if possible, than we have ever done before;—and this extends to every branch of our calling—not only in cultivating our crops, but increased care of our stock of whatever kind it may consist. Therefore, because wool is low, do not give the interesting animal which produces it, a kick at every turn, and say unto it—"Go thy ways, when you are more profitable I will take better care of thee." But I fear, Mr. Editor, my reasoning will fail to eradicate the doctrine which now so extensively prevails, viz:—Let the master take care of himself, and let the sheep take care of themselves; if this is not anti-republican, it is *anti-profitable* no one ought to deny.

With a view of keeping before the eyes of your readers the several positions I have endeavored to sustain, and which are the result of protection, I will recapitulate them, viz:—*Prevention of disease*, therefore *saving of life—increased weight of fleece*, and *improvement of fleece*. I will now mention another consequence of pretection which might, however, be obviously inferred, or gathered, from all that I have previously written on the subject:—it is *the increased vigor of the ewes when the period arrives for dropping their lambs, and ability afterwards to sustain them.*

Exposure will impoverish—therefore, your ewes being thin, they will, of course, be weak: it legitimately follows, that very many will fail in the delivery of their lambs without assistance; and this debility on the part of the ewes will cause the lambs to be small and ill constitutioned things. On the other hand, if the ewes are in good condition, which follows from good keeping *and protection*, they will rarely require any of this assistance—in almost all instances own their lambs in consequence of having the necessary aliment to sustain, and the lambs will be alike vigorous with their dams.

It is and has been my practice, as it ought to be with all those who have a due regard to their interest, to visit every flock of ewes twice a day, and sometimes oftener, during the period of lambing. Before my sheep were protected, it was not an unusual thing to find from five to ten cast, every day, and requiring the assistance abovementioned; and the loss of lambs, consequent upon their debilitated condition, was surprisingly large. I need not say it was a source of abundant congratulation to myself, when I discovered that protection was the grand remedy. The spring immediately following the first winter of protection, but a very few were found unable to rise, and I not only then, but ever since, have observed greater size and vigor among the lambs. Year before last, from 600 bearing ewes, I raised 520 lambs, and I will with pride state the fact, that, as regards size and strength, they could not be surpassed. Last year my success was similar, and this season, notwithstanding it has been the worst on record, yet from 650 ewes 485 lambs are living and look exceedingly fine.

But I will here remark—some of your readers may suppose the above not extraordinary success, comparing the number of ewes with the lambs;—it is if the grade of the sheep is considered;—it must be remembered that *fine* ewes rarely produce more than one lamb at a time. If my memory serves me correctly, Mr. H. D. Grove, of Hoosac—whose intelligence on the subject of sheep husbandry is not surpassed—stated in a communication which appeared several years since in the N. Y. Farmer, that from 100 ewes his ordinary success was rearing 90 lambs: but it should be further stated that his sheep are most thoroughly protected during the time of lambing, which is in February or March, and, I have been informed, the apartments of his ewes are warmed by furnaces and stoves; mine on the contrary drop their lambs during the month of May, and are exposed to "wind and weather." But I would not have any deceived by drawing the inference that my flocks are on a par with his in reference to quality of fleece; far from it; it will require years for me to bring that about. I will further digress:—It should be known that the finer the fleece, generally, the more delicate the animal, and greater is the amount of care it requires. But notwithstanding this, if the manufacturer or the wool buyers, would sufficiently discriminate in qualities, and give prices accordingly, I believe the finer the quality of our wool the more profitable it would be. But the practice is, for the manufacturer to despatch A. B. and C. with commissions to purchase, and prescribe a range, or limits to prices. This is wrong, and if it continues will afford poor encouragement to any extraordinary efforts of the wool grower to improve his flocks. I could discourse "right eloquently" on this particular point, Mr. Editor, but it is not the proper place. I will only say to the manufacturer, if you would have us improve our flocks, ☞ DISCRIMINATE.

I have now named all the prominent advantages to be derived from protection of sheep—at least all which my experience has developed, and shall occupy the remainder of my space in pointing out the best kinds of shelter, which personal knowledge has afforded me the means of deciding.

I can, without any sort of hesitation, recommend, as having the decided preference, what are commonly called here, "Massachusetts barns," or, I might as well say, German—for they abound in Pennsylvania, where, by the way, the cellar, or under ground room, is appropriated to horses instead of sheep. For a brief description of this kind, and the advantages over any other, I refer to No. 1, this series of Essays. The next best, in my opinion, are those of which I have the largest number, and for description I also refer to No. 1. I omitted to state the cost:—those in size 30 by 18 feet cost $45, and the size 36 by 20 feet cost $55. They were built by the job, and when lumber was bearing a similar price to the present time.

But there are thousands of wool growers who will not protect their sheep at all, much less incur the above expense, notwithstanding the cost would be returned to them, if not in one year, certainly in two, in the saving of life, &c. &c. To such I would recommend cheap shelters, as follows:

When securing hay, if stacked, build two pens for the reception of the bottoms of the stacks four and a half feet high from the ground, and place them about thirty-five apart, in, or nearly an east and west line. Then take two poles of sufficient length to reach from pen to pen, and rest the ends on the tops of each pen; the centre of the poles to be supported by crotches, and well secured in the ground. A sufficient number of rails or poles will then be required to support the straw, which will be necessary for a covering: a plentiful supply should be used to absorb rain and prevent leakage. I will also suggest, that the straw ought to be secured by placing a few rails on the top of it, otherwise violent winds will displace it. The rear of the hovel, which, of course, should be the north side, can be made of boards, and must be tight; if it is not, snow when drifting will be certain to find its way in, and often occasion the trouble of removing it. If boards cannot be readily obtained for the back, racks, made of rails or poles, and stuffed with straw will answer quite as well.

I also recommend the erection of several racks to be filled with straw, called "wind breakers." I will not mention where they ought to stand, as practical farmers know pretty well the point a northwester is apt to bite hardest. Old and partly rotted straw will answer all the above purposes the better. The size of the hovel, as described, is calculated for 100 sheep.

I have already extended this much beyond the limits I prescribed, otherwise I should have made some suggestions on the subject of shelters to a "Livingston County Farmer;" suffice it to say, I do not like his plan.

In treating of the great and important subject of protection, Mr. Editor, I have developed my private affairs not a little, which appeared necessary to the support of the several positions I have endeavored to sustain; under any other circumstances delicacy would have forbid. My motive, first, was humanity towards the most dependant and most interesting of all domestic animals which Providence has designed for the use of man; and, second, the great desire I feel to promote the important interest of sheep husbandry.

If, among the thousands who neglect protection of their sheep, I have succeeded in persuading a few to follow my example, the time I have devoted to establish the advantages of so doing will not have been lost. L. A. M.

Lansing, Tompkins Co.

BREEDING HORSES.

Mr. Tucker—That the breed of horses in our country should be improved, will not be disputed by any one; and it is equally clear that in the beginning the means of improvement must be obtained from abroad. To breed good horses, the number of mares to which a horse is admitted must be limited, and the price must of course be comparatively high to be remunerative. But are not the owners of some of our horses, particularly what are termed blood horses, overshooting the mark altogether, and fixing on prices that will effectually prevent, what should be the object with all in introducing valuable animals from abroad, the general improvement of American stock.

In the April number of the Turf Register there is a long list of stallions, the places of keeping, and the price of their services. Of these,

20 are valued at	$50	the season.
10 ....."	60	"
5....."	75	"
1....."	80	"
14....."	100	"
1....."	150	"

All this may be correct, but if every effort to benefit the public deserves a reasonable compensation, it would seem that the reverse, or little encouragement should be given where extravagant pretensions or prices are attempted.—Few persons have been at the trouble of making a calculation as to the cost of raising a colt of any kind, but a writer in the Register has given the expense of rearing one at present prices, and has shown that in most cases the operation must be a losing one.

"A good brood mare cannot be had short of about 2000 dollars.

Interest on mare, at 6 per cent,	$120
Her keep for 9 months, at $2 per week,	78
Services of the stallion,	100
Expenses and keep while absent, hire of groom, &c.	100
Keep of a colt 3 years, at $2 per week,	312
Cost of unbroke colt at 3 years old,	$710"

This may seem high, but reduce the expense to 500 dollars, and any person acquainted with the raising of good horses, knows that it must still be a losing operation. W. Wallace Cook, a gentleman well acquainted with the raising and value of horses, says:

"It is well understood that the best stock will not produce more than one colt in ten worth a $2,000 prize, or one in fifty that shall be deemed a good performer, worth $10,000; let us, therefore, review the loss or profit attending this business. In ten years there will be,

3 colts at 3 years, valued at.....	$300 each,	...$900
1 colt at 3 years,....	".....	2,000
6 colts,....	".....	1,200
		$4,100

The cost of rearing 10 colts, at $500, is $5,000, loss $900."

When it is remembered that there is no allowance made here for losses every year, deaths, accidents, doctors' bills, breaking or training, which last is by some valued at $150, or an insurance to cover the whole, the estimate cannot be deemed extravagant, and it proves most conclusively that the owners of these horses are over-estimating their services, in affixing such prices. It is true, these charges mostly relate to horses at the south, and that our best horses, in the main, are to be had at very reasonable rates, yet as the prices of the best horses here at three years old would be as much lower, as the cost of production would be less than the above estimates, it follows that all extravagant charges with us have a direct tendency to retard the improvement of our stock, by deterring farmers from availing themselves of the advantages which crossing with imported horses would afford. Farmers, however, should always remember that a good horse will at all times command a good price, while the multiplication of inferior ones, if they cost little in the rearing, are worth still less for sale or labor, and are not unfrequently a dead loss to the grower. G. M. H.

Revolving Horse Rake.

Mr. Editor—Your able associate "J. J. T." has strongly recommended the use of the above implement. I can add my testimony to his, of the great amount of labor it is the means of saving. I have used one for the last two years, and as an instance of what it is capable of performing, it raked over eleven acres of meadow, beginning at 1, P. M. and finished at half past six, making 5½ hours. How many *modern* laborers will it require to accomplish the same? Answer—ten. The meadow yielded about one ton to the acre; the horse was something more than an ordinary walker. I have merely singled out the above instance, as the size of the meadow was accurately known.

Lansing, Tompkins Co. L. A. M.

Inquiries.

Will you, or some of your correspondents, inform the readers of your valuable paper the name of the bug which injures the pea, and at what time in the summer it disappears, and whether late sowing will not prevent their depredations.

I also wish to inquire whether the partially decomposed vegetable substance of which our extensive wet prairies are composed, would not be a valuable manure if mixed with the soil which composes the oak openings of this country. J. H. Jr.

Macon, Michigan, June, 1838.

Use of Lime for Preserving Fences & Buildings.

Mr. Holmes—Calling some time since on a friend of mine, who is a curious observer of things, he communicated to me, among other items of information, his method of painting, or rather white-washing his buildings, to preserve them from decay. I was so much interested by its simplicity, as well as cheapness, that I took a memorandum at the time, of the materials used, expense, &c.

The materials are common salt and lime. Put about a quart of salt to a pailful of water—or rather as much as the water will dissolve. Then add fresh slacked lime—enough to give the proper consistency to apply with a brush. It must not be too thick, as that will cause it to peel off—and it will be necessary to put on two coats. He says, you may add paints, if you please, to give it a different color. The whole expense of the materials, and putting on the same, would not exceed two dollars and fifty cents, for a house 36 feet long, 18 wide, and 18 high.

I find also, in looking over my papers, in the New-York Farmer for April, 1836, the following recipe for an "incombustible wash for buildings, to render them fire-proof; and also a coating for brick work, to render it impervious to water."

Proportion for five gallons.—"The basis is lime, which must be first slacked with hot water in a tub, and covered to keep in the steam; it then should be passed in a fluid form through a fine sieve to obtain the flour of the same. Six quarts of lime, and one quart of clean rock salt for each gallon of water, to be dissolved by boiling, and skimmed clean;—then add to the five gallons, one pound of alum, half a pound of copperas, three-fourths of a pound of potash—the last to be gradually added—four quarts of fine sand, or hard wood ashes, say hickory. You may add any coloring matter that your taste may dictate. It should then be applied with a brush; and it will, it is said, look better than paint, and be as lasting as slate. It will stop the small leaks, prevent the moss from growing, and render the part painted with it, incombustible.—*Maine Far.*

From the Franklin (Kentucky,) Farmer.

WOBURN OR BEDFORD HOG.—(Fig. 27.)

The plate is a representation of my Boar, Belmont, taken from a painting by Moss. The proportions are from measurement, and taken when he was nine months old. He is of the Woburn (or as generally called here the Bedford) breed. By looking at the painting and imagining a body nearly round, you may have a tolerable idea of this breed of hogs.

The excellence of this breed consists in their early maturity, large size, ease with which they fatten, hardiness, productiveness, and being excellent travellers.

I will give a few instances, of size, taken from actual weight. I sold to Maj. Yeldell, a pig, pigged on the 8th of March, and he weighed him in the July following, and he weighed one hundred and fifty pounds. A pair from the same litter sold to David Tanner, and weighed in October, weighed two hundred and six and two hundred and eight pounds. A pig sent to Mr. Phelps, six or seven weeks old, was weighed every ten days for some time, and found to have gained each time fifteen pounds. The boar from which the above plate was taken, notwithstanding his long journey to Kentucky, was the largest animal of the hog kind that I had ever seen at nine months old. I regret that I did not have him weighed; but the following measurement was taken at nine months old: From the root of his ear to the root of his tail, four feet two inches; around his body, five feet.

As an instance of the ease with which they fatten, I would state, that I cut one of my boars and sold him to Capt. C. A. Preston, his weight was two hundred and sixty-seven pounds; and he again sold him in thirty days and found his weight to be three hundred and sixty-seven pounds, having gained one hundred pounds in thirty days.

As an instance of their productiveness, I would mention a sow that was two years old the 13th of last month, and has produced forty-four pigs at four litters, none of them have ever raised more than ten; but they often have over that number.

Mr. Bush, Mr. McDonald and others, who have driven them, all concur in saying they are the finest travelling hogs they have ever driven, and sell first when they get to market. I prefer the name of Woburn, the name by which they are known in England, to the name of Bedford, on accouut of there being several kinds of hogs of the latter name, one of which originated from a family of that name who had them in this State.

I have had this breed of hogs ever since 1832, and consider them better adapted to the wants of Kentucky than any hogs I have seen, and the boar, Belmont, and two sows, were imported last spring, for a cross for my other hogs.

I can furnish any reasonable number of boars for breeders, and a few sows, at from $5 to $10 each, according to size and quality. I have lately added thirty young sows to my former list of breeders, and hope when they have pigs, which will be in about two months, that I then can supply all that may want. I am breeding from four boars that are very little connected with each other, so that I can furnish a suitable cross. I know of no animal that degenerates sooner than the hog from breeding from near relatives. I have never seen full brother and sister produce stock equal to themselves.

May 13th, 1838. SAM'L D. MARTIN.

On Manures, there Nature and Application.

We give the name of manure to all substances which are applied to land for the purpose of increasing the crops we intend to cultivate, and we are satisfied that, by the application of manures to our land, greater crops are produced, until the strength of the manure be exhausted; and then we apply another quantity to keep up its productiveness without even inquiring into the nature of the manure which we apply, or the way in which it produces these effects on the soil.

The importance of manure to the farmer is such, that his success in the production of the crops he cultivates, will mainly depend on the quantity, and the application of it, to the crops he raises, as food for sheep and other stock; as those crops which are consumed on the farm are much more productive of an additional quantity of manure than the crops of grain, a great part of which is carried off the land.

Vegetable and animal matter in a state of decay or manure, is composed of carbon, oxygen, and hydrogen, as we have before stated, the elements of which are the elements of growing vegetables. "By the laws of chemical attraction, vegetable and animal manure are changed by the action of air and water, and made fluid or ariform." (Davy.) Vegetable and animal manure, when well mixed in the soil, gives to it the power of absorbing and transmitting moisture for the use of plants that grow in it; therefore improvement in some soils, and increased energy in others, will be given by the application of manure. The effects produced will continue much longer in some soils than others; in some it will be of long duration; in others, it will be transitory. The dung of animals kept on a farm with litter is the principal manure on which the farmer should depend, as he has it in his power either to increase or diminish it. Other manure he can have recourse to when an additional quantity is wanted. As straw and green crops are the foundation of manure, the increase of these raw materials is therefore of great importance with a view to future crops. When straw is left in the field as stubble we are deprived of one-fourth at least of the means of producing manures, we therefore see the propriety of collecting all the straw which our crops produce, for the purpose of converting it into manure.

In the experiment we have made to ascertain the weight of a crop of straw, we find that the quantity of wheat straw will average double the weight of the wheat produced, so that if all the straw be converted into manure, by part of it being consumed by some animal as food, and the remainder as litter, it would with proper care produce manure sufficient to keep up, and with good culture increase, the productiveness of the soil.

The production of turneps, vetches, and clover, by a large proportion of the farm, and the consumption of these by sheep and oxen will, under almost every circumstance, produce a sufficient quantity of manure to keep the land in a highly productive state; and if sufficient attention be paid to this part of agricultural business, a much greater quantity of corn will result from it, even when a less breadth of land is sown to corn, and a greater proportion to turneps, vetches, and clover.

As manure is of such vital importance to the farmer, every attention should be paid to the collection of the materials necessary to form it; every vegetable substance, together with the waste earth of ditches, road sides, sides of the fields, yards, &c. will add to the compost heap, not only in quantity but also in quality, if proper care in the mixture be attended to.

Weeds of every kind will be available before they come to seed, or rather before they blossom, as the seeds of many of them are perfected before the blossom drops off; and it should be kept in mind that no fermentation in the dunghill will destroy the vegetative power of a single seed.

When vegetable matter is fermenting in a dunghill, it should be mixed and covered with earth, which will imbibe the volatile or gaseous matter that is thrown off during its fermentation; and if there be a large portion of animal manure in the compost, it should have a bed of earth to imbibe all the carbonaceous matter that runs from it; and on every turning over which we think it right to give the mass, we should add an additional quantity of earth to cover it with.

Much earth should be used in all dunghills, as the earth that is thus impregnated is nearly if not altogether as valuable as the dung itself, in altering and improving the soil to which it is applied.

But in these composts regard should be had to the nature of the soil to which we intend to apply them, for we should regard manure more as an alterative than as food for plants. A composts for a light soil should be formed of cold manure, the dung of animals which chew the cud, of clayey or tenacious earth, and the clearing of ditches or other water fed earths. The compost of strong tenacious soils should, on the other hand, be formed of hot manure, the dung of animals that do not chew the cud, such as horses and pigs. These should be mixed with light, sandy, or rubbly earth, the sides of roads, or sandy dry porous earth from rich yards or other places.

Road dirt, being the produce of stone reduced by friction, is of a gritty sandy nature, whatever be the nature and properties of the materials of which it is composed; and from its gritty quality it forms an excellent alterative for clayey soils, and when mixed with a large portion of horse dung it forms an excellent compost for all clay or strong soils, as it tends to keep the soil open and porous.

In Flanders great attention is paid to manure, particularly to the urine of animals and water that runs from the dunghill. These are collected and oil cake dissolved in them, and they are drawn out in water carts and spread over the pasture land; or mixed with earth and formed into a compost, they become an excellent manure for turneps as well as pasture. An ox is said to make 12 cart loads of dung per annum, if fed on grass in the stall, and 1,400 gallons of urine. "The urine of 44 head of cattle, with the aid of 2,400 lbs. of rape cake, is sufficient to manure in the best manner 21 acres."

Manure should be always applied to fallows so early as to be well mixed with the soil before the crop is sown; it then combines with it not only mechanically, but chemically, and thus increases the powers of the soil to combine with the water and air, and decompose their substances from which plants receive their nourishment.

The whole of the manure, however, ought yearly to be applied to the production of those crops, which furnish food for animals kept on the farm; such as turneps, cabbages, potatoes, vetches, carrots, and clover for sheep and oxen.

Meadow land should be manured soon after the crop of hay is carried off, and before the end of August. A compost with at least one-third of earthy matter in it is the best manure for meadow or pasture land; and the land should be pastured the year after manuring.

Ashes from burnt peat are used largely both in Berkshire and in Hampshire, as a top dressing for young clover: and have so great effect on the crop as to increase it perhaps fully one-fifth; 50 bushels is generally the quantity used, per acre, although more will have a greater effect. Ashes are had at Newbury in Berkshire at 3d. per bushel; this costs only 12s. 6d. per acre. and a day of a wagon, besides the spreading.

In the application of manure, the nature of the soil should be considered. If the soil be a strong clay, and very tenacious, the manure should be of a light, or loose porous nature, such as stable unfermented dung; and if a compost, it should be made of a light, sandy or porous nature; but if the soil is light and porous, the dung should be of a cold nature, well rotten cow or cattle dung.

Compost made of cattle dung and clayey loam, or any heavy tenaceous substance, is the best manure for light land; long straw, or unfermented dung, as stable dung or any substances, which are loose and friable, should never be used on sandy soils.

Peat mixed with green dung and fermented, is formed into an excellent vegetable manure: the mode of doing this in the most perfect way is that recommended by Lord Meadowbank.

The principal artificial manures are bone-dust, soot, rape, and oil cake; these produce wonderful result on the turnep crop.—*Morton on Manures.*

The Mammoth Calf.

A few days since it will be recollected we gave an account of an extraordinary calf, belonging to Mr. Lucas Decker of Wallkill, which when only eight days old weighed 125, and at the same time enquired whether Mr. Decker, would be able to make it reach 195*lbs.* at the end of five weeks—the weight of a beautiful calf killed in our market a short time since. Mr. Decker called on us a few days ago, and states that the weight of his calf at a similar age, is more than *two hundred and fifty pounds*, and that he has disposed of it to Gilbert Oliver, Esq. near Bloomingburg, where the incredulous may have an opportunity of viewing it. We doubt whether this calf can be equaled in the county. It is a cross of the Durham and Devonshire, and although requiring the milk of two cows we learn that Mr. Oliver intends raising it. This speaks much in favor of our improved breeds of stock.—*Goshen Republican.*

The Morus Multicaulis.

Every one in the least acquainted with the means of producing silk well knows that the first matter requiring attention is to provide a plentiful supply of food for the silk-worm. The leaves of the Mulberry tree are not the only leaves which the worm will eat, but for ought that is known they are the only food on which the worm will feed and afterward spin silk. There are many varieties of Mulberry trees. Those most cultivated by the silk-growers of all countries are the Morus Alba or White Mulberry, the Brussa, and the Morus Multicaulis, commonly called the Chinese Mulberry. We have cultivated all these varieties, and have fully satisfied ourselves which of them is most valuable. No doubt a very handsome profit may be obtained by converting the leaves of the White Mulberry into silk. Experience has abundantly proven that this is the case. The leaf of the Brussa is larger than that of the White Mulberry. For this reason we prefer the former to the latter. We, however, give the Morus Multicaulis the decided and unequivocal preference over all the other known species of Mulberry trees. Among practical silk-growers we believe there is very little if any difference of opinion on this subject. This tree has now been in our country several years, and the more it becomes known the more it is valued and sought after. We will give a few of the most obvious reasons why we prefer the Morus Multicaulis to the White Mulberry. It takes the latter five years at least to grow large enough to afford foliage sufficient to feed many worms. But from the Morus Multicaulis of the first year's growth we have fed worms in such numbers as to obtain from 50 to 100 lbs. of silk from the leaves growing on an acre of land worth from $250 to $500. It has another advantage of still greater magnitude. The leaf of the Morus Multicaulis is 8 times larger than that of the White Mulberry, therefore the labor of gathering it is reduced in the same ratio. This is a very weighty consideration in as much as the picking of the leaves is the great item of expense in making raw silk. The weight of leaves which the Multicaulis will produce is a hundred per cent. more than the White Mulberry affords where the trees are of equal age and on the same extent of ground. This is not all. The Multicaulis can be propagated more abundantly and cheaper than the Morus Alba or any other tree with which we are acquainted. Many persons have expressed fears that the Morus Multicaulis would not endure a northern winter. When the tree was first imported and planted in New England it suffered from the unprecedented cold of some of the late winters. But it has now become acclimated and will live after being protected the first winter of its life. In the middle and southern states we have not heard that it has been injured by the cold weather. We have now growing on our silk plantation in this town many of these trees, which have remained in the open field without the least protection since last summer, and they are now as thrifty and hardy as any of our native forest trees. That the Morus Multicaulis, with proper management will endure the climate of New-York and New England we have abundant evidence. That it will flourish in Pennsylvania and the southern portion of the union is not here deemed questionable. Experience has proven it. At the north the tree must be protected the first winter. At the south even this is not necessary.

We do not think it advisable to attempt to propagate the Morus Multicaulis from the seed as it is extremely difficult to procure it and hardly possible to distinguish the seed of the genuine Chinese Mulberry from that of the less valuable varieties. Nor should these objections be obviated, is it by any means certain that a tree can be grown from the seed of the Morus Multicaulis which will resemble the tree from which that seed was taken. This has been demonstrated by many experiments. Nothing can be gained by attempting to grow the Multicaulis from seed, but much may be lost by it. The tree can be produced from layers or cuttings more quickly, cheaper, and certain, than by any other method.

Any land that is suitable for raising a crop of corn will do for cultivating the Chinese Mulberry. A dry, warm, sandy loam is quite congenial to its nature. A cold, damp, or heavy soil will not answer. It will thrive tolerably well on poor land, but much better on that which is fertile. Prepare the ground as for a crop of corn, and at the same season furrow it into rows 3 1-2 feet asunder. Then scatter well-rotted manure in the furrows two inches deep. Trim the trees of every limb, and lay them in the furrows so that they will just reach each other, cover them up about as deep as corn is usually planted, except the roots, which should be buried deeper. Carefully preserve all the limbs and plant them in the same way. Ten trees are often thus procured from one. In about three weeks, should the weather prove favorable, sprouts from the buried tree will break through the ground. After which, the earth about then must be stirred occasionally, and the weeds be kept down till August. Then let them entirely alone that they may ripen and the wood attain solidity before the coming of the autumn frosts. When the trees have done growing in the fall, pull or plough them up and cut them apart with a knife or pair of pruning shears. To preserve them through the winter lay them down in the open field on dry ground—cover them with sand and they will be found fresh and in good order the next spring. Or they may be placed in a cellar with the roots resting on the ground with some dry earth placed about them.

If your object is to grow more trees you will, the ensuing spring, again plant according to the directions already given. But if you purpose to make a permanent plantation, you will, after ploughing the ground, set out the trees in rows 8 feet apart, and standing 2 feet from each other in the rows. When winter again draws near, cut off the trees near the ground and preserve the trunk and limbs for further increase. When spring returns, the roots and stumps which were left in the ground will send up a great number of shoots, which will put forth a quantity of foliage that will be truly astonishing. By severing the tree near the earth several advantages are derived. The body and branches are thereby saved to be again planted. The tree is so valuable that this is an important consideration. The quantity of leaves which will grow on the sprouts is greater than could have been obtained from the whole tree had it been left standing. Leaves cannot be gathered from trees of much heighth without reaching or climbing up to them. But they may be plucked from shoots of one year's growth without any such extra exertion, and by children. This practice also comforts the croaker about "too cold a climate for the Morus Multicaulis," and places the silk business beyond the possibility of harm from the severity of northern winters.

There are other methods of cultivating the Chinese Mulberry, approved by gentlemen of intelligence, which we have tried, but we have been so much more successful when we have adhered to the course we now recommend that we shall speak of no other.

Large sums of money have been made by the cultivation and sale of our favorite tree. It has proved an exceedingly lucrative employment to those who have engaged in it. But we would advise that more than this should be aimed at by those who intend to embark in this new and, as we think, important enterprise, viz: To make money by growing silk. This can be done, and our country become one of the greatest silk-producing regions on the globe, should our people but will to have it so. No competition in the business need be feared for a number of years to come, if ever. The bounty offered on silk by the state of New Jersey will pay all the expense of making it, and leave the whole of the crop a clear profit. The bounty granted by Pennsylvania will do even more. Then why not advance in this great enterprise. Why remain idle when such weighty considerations invite to action. It is one of the most pleasant employments that ever were conducted under the sun. The lame, the halt, the widow, and the orphan can perform the labor. Then why not permit them to do so and pay them a part of twenty millions which is annually sent abroad in exchange for silks, and to feed foreign mouths, and enrich foreign aristocrats. This would afford thousands of the poor and feeble among us the means of comfort and independence, and make their hearts beat with pleasant emotion and their eyes sparkle with gladness and joy, and at the same time add to the wealth, the honor, and the prosperity of our great country.—*American Silk-Grower.*

PORK RAISING.

Mr. Holmes—I was pleased to see the following question asked in No. 46 of the 5th volume of the Maine Farmer. To wit: "Why are we not a great pork raising, and pork exporting State?"—by a farmer who not unfrequently makes useful suggestions in your paper, over his proper name, so that those who are acquainted with him may know what weight to give to his communications. He seems to answer his own interrogatories, by telling us farmers what *may be done;* but until we are made to believe, it will be for our interest to do it, it *will not be done.* I have orally put the same question to some of my calculating neighbors, who say to me that we cannot raise pork to profit, even now, as great a price as it brings in the market; and do much towards it by the use of potatoes, or other roots which we can sell for 20, 25, or 30 cents per bushel. Then they go on to cast how many bushels it will take to rear a swine, &c.; and at that price, and by this time, they are able to show me that it cannot be very profitable aside from the great advantage of their manure, to go largely into the business of pork raising, so long as we can sell our roots at the price they have brought.

I then inquire if potatoes cannot be raised for a much less price per bushel than they bring? O, yes; for one-third what they bring. Yes, say they, you have not been able so to convince the farmers of it as to materially reduce their price. Now, Mr. E. Wood, you must begin here, and satisfy us farmers, that we do not raise one-fourth part roots enough for our own interest; and that if we raise many more than we can market at the price they have sold at, we may raise pork with them to great profit; and then, and not before, shall we become a great pork raising and pork exporting State. A word to the wise is sufficient.

On reflection I have been astonished that we, Yankees, who are so prone to over do every business, should not have brought potatoes and other roots down to nearly the

actual costs in raising;—allowing the farmer as good pay in their culture as he can possibly get in any other business on his farm: (tho' the farmer who raises an abundance, likes to have it so, and says if you can influence the farmers to raise many, I shall have to give mine to the swine, and procure more to eat them; but the capital will be nothing beyond the costs of a piggery and a couple of breeding sows—and what other business requires so little outset to begin with?)

I add, that I am the more astonished, when it it agreed on all hands that the climate of Maine is congenial to their growth,—that they are as certain a crop as most others,—that they leave the soil not exhausted, but actually bettered for wheat, or other subsequent crops.—*Maine Farmer.*

Account Current with a Pig.

Mr. Holmes—I write that farmers and pork raisers may learn whether it is profitable to go largely into the business in this state or not. I have to this end opened an account current with a pig, for which I gave on the first of October, at a month old,.....$ 1,50

Kept it until it was 16 months old, and then slaughtered it. 14 months of which time I kept it on raw and boiled potatoes—allowing it a peck a day; soon after weaning it did not need that amount,—but it had milk or something as expensive; which results in his consuming, in the 14 months, 105 bushels,—at 20 cents the bushel, amounts to..... 21,00

The month on its dam, and 14 months on potatoes, as above, brings it to 15 months old: the other month (for it was not slaughtered until 16 months old,) I kept him on Barley meal, at 67 cents the bushel, and it eat a half peck per day,—which amounts, for the last month, to..... 2,40

Tax..... 30

I charge nothing for attendance, risk, &c., being more than paid in offal and manure.

$25,20

When slaughtered, it weighed three hundred pounds, which, at 8 cents the pound, brought me $24,00

Loss,..... 1,20

But if potatoes cost only ten cents per bushel, (which, in fact, is all they cost in raising,) then deduct from my charges against it..... 10,50

Making the profit $14,70.

Twelve such would give a profit of $176,40—a pretty item—and plenty of manure.

Some may suppose the pig was not so expensive as I have made it—that it would not eat a peck of potatoes a day, &c. &c. If potatoes are worth more than I have put them at, pork should be too. I write, hoping to hear from others. No doubt September pigs are most profitable—they eat much less than earlier ones in winter; whereas early pigs eat, the first summer, what the later ones should have,—and on New Year's day, when the September pigs are 16 months old, there will be very little difference in their size, if the late ones are kept warm the first winter. Some have supposed an early spring pig on the whole most profitable to kill on the first of January following; respecting which, I hope some farmer will communicate his veiws through the Maine Farmer.—*Ib.*

MOWING.

This is one of the most important operations in farming; a great deal of this work is to be done in a short time, and in a warm season, and it is of the greatest importance to lighten the labor as far as possible. We have seen some very stout hardy men toil and sweat all day, and do but a small day's work, while other men of much less stiength would cut more grass, and yet not exert themselves to fatigue. From this it is evident that some mowers exert twice the strength that others do in performing the same work, and those who use the least strength usually do their work the best, though they may not render the field so smooth by cutting off the tops of knolls, stumps, stones, and other impediments that intrude themselves among the thick grass.

There are several reasons why there is so great a difference in the expense of labor; there is a difference in sneads and scythes as to their hanging well, and there is so great a difference in scythes as to their cutting with ease and holding their edge, that some are better worth five dollars than others are worth one cent. Some men keep their scythes in prime order, and in mowing they lay their strength out to the best advantage; they use a gentle motion that will not fatigue; they are less liable to strike stones, &c. than those who make greater exertions, and when they do strike them, less injury is done

The best scythes should be chosen, as the difference in price between a very good one and one that is good for nothing, is a mere trifle; indeed the expense of a good scythe is less than its value above a poor one for only one day's use. A scythe should hang light and easy, so that in mowing no exertions will be necessary excepting to swing the scythe and hold it steady. We have seen some scythes and sneads, or things that had these names, so rigged that the strength of one man was necessary to hold them in a proper position, while that of another was needed to swing them; of course, by having a good scythe well hung, one-half of the labor will be saved.

With good rigging and a good scythe kept sharp, a gentle swing of the scythe will be sufficient to do as much as is performed by those who get along by main strength instead of wise management. The motion of the scythe on even ground should be horizontal, by *pointing in and pointing out*, as the saying is, cutting the grass square at each side of the swath. Some mowers who labor hard, waste half of their strength, and do bad work, strike it over the tops of the grass, cutting it off lower and lower as the scythe approaches the middle of the swath, then rising as it goes to the other side; so that the middle of the swath for only about one-third of the width is cut sufficiently low. This is called the *square lop*, and it often brings the scythe in collision with obstructions in the middle of the swath, while one fourth or more of the grass is left on each side. At a mowing match, an old gentleman was showing his sleight at taking the *square lop*, when his scythe by some unaccommodating substance in the grass, was made into the shape of a rainbow.

Those men who labor to great disadvantage in mowing should get some that are well skilled in the business to select and hang their scythes, and give them lessons in their work. We think this would be good enconomy.—With a little trouble they could improve so as to perform more labor and save ten or twelve dollars' worth of strength in one season; this item saved annually will be very important to one who wishes "to make a stout old man."—*Yankee Farmer.*

Use of Lime in New Hampshire.

"One of the shakers recently told me, they had been in the habit of buying the best of Thomaston Lime, which with transportations cost them at least three dollars a cask; of breaking and slaking it and mixing it with mud collected from bog-holes or turfs from the sides of the highways, in proportion of four or five casks to an hundred common ox loads; and after due fermentation and mixture, they have found this composition not less valuable than an equal quantity of the best of stable manure. If the above remarks are correct, and no doubt they are as I find them corroborated by various writers on this subject, it is an easy and cheap method of obtaining manure, and well adapted for top dressing.

The Hon. John Wells of Boston, who has made several experiments with lime in the preparation of compost manure for a top dressing, recommends that it be prepared by first placing a layer of mud or loam as the case may be, then a layer of unslaked lime, and so continue until the materials are used up; and in twelve or fourteen days, shovel it over and it will be fit for use. From what I am able to gather from this gentleman's experiments, he made use of lime in proportion, of about one cask of Thomaston lime to five loads of loam or mud, and that he annually for more than twenty years made use of lime, 'for agricultural purposes to the extent of more than one hundred casks.' He further says:—'To my surprise I found the effect produced to be equal to what is usual from common compost manure!' Lime as a top dressing on a wheat crop is undoubtedly valuable on many kinds of soil, especially where there is a deficiency of calcareous matter.

Benj. Cutter, Esq. informs me that he has made use of lime at the rate of twenty bushels or more to the acre, as a top dressing, by sowing it on in a fine pulverized state, when the wheat was a few inches high, and considered himself well remunerated in the wheat crop. The Hon. Levi Fisk, observed to me, that he used two tierces of Thomaston lime last spring by sowing it on nearly two acres of wheat, leaving a small piece in the same field unsown, and is confident he realized twenty-five per cent more wheat in consequence of the lime. The above and other similar experiments, are conclusive evidence in my mind, of the importance and value of lime as a manure. —*Conant's Cheshire Address.*

Agricultural Societies.

I would here remark gentlemen, that we believe the motives and intentions, which induced you to form this Association were good; the objects and benefits to be obtained are worthy of all the energy and perseverance you may be able to bring to its support. If one fourth the zeal, perseverance and expense that fill so many Gazettes, for political purposes, were bestowed for the advancement of agriculture; if the people were as anxious to cultivate and improve their farms, as they are to settle the affairs of State, and half as much at enmity with briars, thistles and poor fences, as they are with political opponents, we should have more productive farms, less complaint of hard times, more ability to be charitable, and much greater unanimity and good feeling. The efforts of this Association are not intended to benefit the few at the expense and degradation of the many. They are not calculated to undermine the foundation of our Republic, and prepare the way for anarchy and tyranny. On the contrary they tend to enlarge the mind, and benefit the great mass of people by increasing their happiness. And if persevered in, they will spread over these mountains, and glens, a degree of comfort, intelligence and independence far in advance of what they now possess. With the blessing of heaven this Association has it in their power, vastly to increase the means of subsistence in this county, without diminishing the comfort, of its inhabitants, so that ere long our hills and valleys shall be seen smiling with an increase of verdure and fertility.—*Ib.*

New Arrival of Turnep Seeds.

WE have just received from England a large additional supply of Turnep Seeds, among which are the following kinds:

Ruta Baga, or Yellow Sweedish,
Dale's Yellow Hybrid,
Yellow Bullock, Yellow Scotch,
Yellow Aberdeen, Red Round,
White Globe or Flat,
White Norfolk, Long Tankard,
Early White Flat Dutch,
White Stone, Yellow Stone,
Yellow Malta, Yellow Dutch.

☞ See descriptive list on page 198, current vol. Genesee Farmer. REYNOLDS & BATEHAM.

Rochester Seed Store, June 23, 1838.

Seed Buckwheat,

A GOOD clean article for sale low by
June 23. REYNOLDS & BATEHAM.

Red Clover Seed,

A FEW bushels just received, for sale by
June 23. REYNOLDS & BATEHAM.

Root Cultivation.

A LARGE supply of new and genuine Ruta Baga, Mangel Wurtzel, Sugar Beet and Orange Carrot Seed, just received at the Rochester Seed Store.

REYNOLDS & BATEHAM.

Rochester, April 21, 1838.

Drill-Barrows or Planting Machines.

A NEW supply of Robbins' Patent Planting Machines, just received at the Rochester Seed Store.

Also, a number of Merchants' Patent Drill Barrows. [See No. 18, current vol. of the Genesee Farmer.]

May 5. REYNOLDS & BATEHAM.

Farmers' Books.

NOTICES on the Sugar Beet, containing a description of the culture and preservation of the plant; also explanations of the process of extracting its Sugar. Price 25 cts.

A Manual of the art of making and refining sugar from Beets. Price 75 cents.

Cobb's Manual on the Culture of Silk.
Chaptal's Agricultural Chemistry.
The Complete Farmer, by Fessenden.
Fessenden's American Gardener.
A Guide to Orchardists.
Smith's Treatise on the Honey Bee.
A Treatise on Cattle.
Mason's Farriery.
Barnum's American Farriery.
Vols. 1st and 4th, Genesee Farmer, bound.

For sale by D. HOYT,
Rochester, May 26, 1838. Bookseller, 6 State st.

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public, that he has for sale at his Nursery in Rochester, Monroe county, state of New-York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL MOULSON.

April 15, 1838.

N. B. Cash will be paid for a few thousand two years old Apple Trees.

Monroe Horticultural Garden & Nurseries, Greece, Monroe County, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

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April 1, 1838. ASA ROWE.